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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/766,477

01/29/2004

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31721-200490

3729

26694

7590

01/22/2008

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EXAMINER

HAGEMAN, MARK

ART UNIT

PAPER NUMBER

3653

MAIL DATE

DELIVERY MODE

01/22/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/766,477	Applicant(s) KOHNO, MOTOMI	
	Examiner Mark Hageman	Art Unit 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,10 and 12-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 13 is/are allowed.
- 6) ☒ Claim(s) 3,5,10 and 12 is/are rejected.
- 7) ☒ Claim(s) 14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3, 5, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikebuchi in view of US 4,214,982 to Pfalzer. Ikebuchi discloses a cylindrical section (20) comprising a peripheral wall; a conical section (1a) provided below the cylindrical section; a raw grain feeding unit for feeding raw grains together with primary air into the cylindrical section to whirl the raw grains upward along an inner periphery of the cylindrical section above the conical section (13 and c2 lines 50+); a lightweight grain separating unit (1) for taking air having the lightweight grains in the raw grains out from the upper portion of the cylindrical section; a secondary air blowing unit (19) for blowing the secondary air toward the raw grains being dropped from the cylindrical section upward at a lower portion of the conical section to move fine grains upward to the cylindrical section (c4 lines 2+) wherein the secondary air blowing unit blows a high-speed fresh secondary airflow into a chamber that surrounds a slit formed between an upwardly beveled surface of a stabilizer (5) and a lower end of the conical section; and a tertiary air blowing unit (18) blowing tertiary fresh air upward from below the conical section into a chamber bounded by the stabilizer and a unit for discharging separated heavier raw grains away from the stabilizer (figure 2). Ikebuchi does not

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disclose the wall defining an exhaust port and the light weight grain separating unit extending horizontally and tangentially from the exhaust port. Pfalzer discloses the wall defining an exhaust port (3) and the light weight grain separating unit extending horizontally and tangentially from the exhaust port (figure 1) for the purpose of removing material in a generally tangential direction (c3 lines 25+). Examiner further contends that such an arrangement is well known in the art and multiple references have been cited although not relied upon herein showing such an arrangement.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have modified Ikebuchi to include the wall defining an exhaust port and the light weight grain separating unit extending horizontally and tangentially from the exhaust port, as taught by Pfalzer and well known in the art, for the purpose of removing material in a generally tangential direction.

Re claim 5 Ikebuchi discloses, the secondary air-blowing unit comprises a secondary air intake chamber (figure 2 lower portion) connected via a slit (figure 2 and c3 lines 62+) provided at the lower end of the conical section for taking compressed air therefrom (figure 2).

3. Re claim 10 Ikebuchi discloses a cylindrical section (20) forming a primary separation space the cylindrical section comprising a peripheral wall, a conical section (1a) forming a secondary separation space provided on a downside of the cylindrical section; a grain feeding unit (13 and c2 lines 50+) for feeding grains together with primary air containing the powder bodies into the cylindrical section from a lower port of the cylindrical section so as to whirl in the cylindrical section in a direction-along an

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inner periphery of the cylindrical section; a secondary air blowing unit (19) for blowing high-pressure air at a lower portion of the conical section from a circumferential slit (figure 2) on the conical section toward the grains containing the powder bodies being dropped from the cylindrical section on an upwardly beveled surface of a stabilizer to move the powder bodies upward to the cylindrical section (c4 lines 2+); a tertiary air blowing unit (18) for blowing tertiary fresh air into a tertiary separation space provided below the secondary separation space; and a unit for discharging (figure 2) the grains from under the tertiary separation space. Ikebuchi does not disclose an opening in the wall and an exhaust pipe extending horizontally and tangentially from the opening for discharging air with the powder bodies at an upper portion thereof. Pfalzer discloses an opening (3) in the wall and an exhaust pipe extending horizontally and tangentially from the opening for discharging air with the powder bodies at an upper portion thereof (figure 1) for the purpose of removing material in a generally tangential direction (c3 lines 25+). Examiner further contends that such an arrangement is well known in the art and multiple references have been cited although not relied upon herein showing such an arrangement.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have modified Ikebuchi to include an opening in the wall and an exhaust pipe extending horizontally and tangentially from the opening for discharging air with the powder bodies at an upper portion thereof, as taught by Pfalzer and well known in the art, for the purpose of removing material in a generally tangential direction.

Re claim 12, Ikebuchi discloses the secondary air-blowing unit has a secondary air intake chamber (figure 2 lower portion) surrounding the slit that blows a high-speed secondary airflow through the slit toward an upwardly beveled surface of a stabilizer (upper surface of 5) provided at a lower end of the conical section (figure 2). Examiner contends that the stabilizer is partially located in the lower end of the conical section and that the secondary air does travel toward the upwardly beveled surface.

Allowable Subject Matter

4. Claims 1 and 13 are allowed.
5. Claims 14 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. The following is a statement of reasons for the indication of allowable subject matter: Claim 1 positively sets forth the location of the upwardly beveled surface of the stabilizer as centrally located in the lower portion of the conical secondary section. The prior art does not show this specific configuration of the stabilizer in combination with the other limitations of the claim. Claims 14 and 15 also provide for positive location of the stabilizer relative to the other components that present a configuration that is not anticipated or rendered obvious by the prior art.

Response to Arguments

7. Applicant's arguments with respect to claims 3, 5, 10 and 12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cited documents show tangential outputs and exhaust ports as set forth in claims 3 and 10.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Hageman whose telephone number is (571) 272-3027. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MCH

/Patrick H. Mackey/
Supervisory Patent Examiner, Art Unit 3653